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<p><b>15. Abstract:</b> Functional operational command and control is an absolute necessity for the successful employment of <i>sustained</i> combat operations. During the past ten years, "revolutionary" changes have occurred in the conduct of war. Airpower seems to have become the weapon of choice. Airpower, directed onto targets by Special Operations Forces (SOF), produced devastating results against the Taliban during Operation Enduring Freedom (OEF). The command and control (C2) network for the War in Afghanistan has functioned well. Although the Joint Force Commander (JFC), the Joint Force Air Component Commander (JFACC), and the combat ground and air assets were geographically separated by thousands of miles, our high-tech command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) network overcame the traditional limitations of geographically separated C2. While our C4ISR capabilities are a tremendous asset, they are also a potential Achilles heel. Could a resourceful, asymmetric opponent disrupt and degrade our C4ISR network, ultimately rendering theater C2 ineffective?</p> <p>This paper examines degraded C2 at the operational level. Assuming our primary C4ISR network is compromised, we must have a self-contained theater C2 capability that will work with SOF. The Joint Force Maritime Component Commander's (JFMCC) "floating infrastructure" seems to be ideally suited to provide theater C2 when geographically separated C2 has been compromised by information warfare (IW). The addition of a Special Operations Liaison Element (SOLE) function to the JFMCC staff will be recommended, thus providing requisite subject matter expertise to employ the synergistic combination of SOF and airpower.</p>			
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**JFMCC: THEATER C2 IN NEED OF SOLE**

by

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Signature: \_\_\_\_\_

3 February 2003

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## **ABSTRACT**

Functional operational command and control is an absolute necessity for the successful employment of *sustained* combat operations. During the past ten years, “revolutionary” changes have occurred in the conduct of war. Airpower seems to have become the weapon of choice. Airpower, directed onto targets by Special Operations Forces (SOF), produced devastating results against the Taliban during Operation Enduring Freedom (OEF). The command and control (C2) network for the war in Afghanistan has functioned well. Although the Joint Force Commander (JFC), the Joint Force Air Component Commander (JFACC), and the combat ground and air assets were geographically separated by thousands of miles, our high-tech command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) network overcame the traditional limitations of geographically separated C2. While our C4ISR capabilities are a tremendous asset, they are also a potential Achilles heel. Could a resourceful, asymmetric opponent disrupt and degrade our C4ISR network, ultimately rendering theater C2 ineffective?

This paper examines degraded C2 at the operational level. Assuming our primary C4ISR network is compromised, we must have a self-contained theater C2 capability that will work with SOF. The Joint Force Maritime Component Commander’s (JFMCC) “floating infrastructure” seems to be ideally suited to provide theater C2 when geographically separated C2 has been compromised by information warfare (IW). The addition of a Special Operations Liaison Element (SOLE) function to the JFMCC staff will be recommended, providing requisite subject matter expertise to employ the synergistic combination of SOF and airpower.

*“Command and control – the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.”*

- Joint Vision 2020

## **JFMCC: THEATER C2 IN NEED OF SOLE**

### **Introduction**

Theater C2 has become increasingly reliant on high-tech command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) networks. While our global C4ISR network is a tremendous capability, it is also a potential Achilles heel. Proponents of Network Centric Warfare (NCW) might argue that the Joint Force Commander (JFC) and his staff need not be located in theater to effectively conduct sustained combat operations. The successful C2 network developed for the War in Afghanistan proves this theory. However, a significant caveat should be noted; the enemy did not wage an information warfare (IW) campaign against our network. Future opponents may be able to disrupt our C4ISR network and resulting C2 structure. Therefore, we must have a self-contained theater C2 system.

A major transformation in military strategy over the past ten years has been to minimize the number of ground troops on the battlefield. Arguably, airpower has become the precision combat multiplier facilitating this. Airpower possesses “the near-miraculous property of lengthening the arm of the government whilst shortening its purse.”<sup>1</sup> Therefore, our proposed self-contained theater C2 system must be able to command and control air-centric operations. Air-centric operations conducted during the

War in Afghanistan have relied heavily on Special Operations Forces (SOF) directing aircraft to targets in a near real-time environment. “A major lesson of Afghanistan is that SOF are the glue that enables joint, interagency, and multi-national forces to function as a team.”<sup>2</sup> This being said, our proposed, self-contained theater C2 system must have “in-house” subject matter expertise to effectively employ SOF to coordinate air-centric operations.

This paper proposes that the Joint Force Maritime Component Command HQ (JFMCC) may have the best capability to provide C2 when geographically separated C2 has been compromised. Obviously, this thesis is limited to combat operations that have some degree of accessibility from the sea/littorals. Since the demise of the former Soviet Union in 1989, our mainstay “land-locked” opponent appears appeased. The majority of combat operations since have involved accessibility from the sea: the Gulf War and current Southwest Asia operations, Bosnia, Somalia, Haiti, and Afghanistan. Combat operations supported from the sea/littorals seem to be a likely paradigm for the foreseeable future. Hence, the “floating infrastructure” that the JFMCC provides appears ideally suited for theater C2. The addition of a Special Operations Liaison Element (SOLE) capability to the JFMCC staff will be recommended. The SOLE provides the critical subject matter expertise for maximizing SOF’s ability to coordinate air-centric operations.

A historical synopsis of air-centric operations will be presented to derive the critical variables of this process towards the JFMCC’s ability to provide self-contained,

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<sup>1</sup> Charles Townshend, *Civilization and Frightfulness: Air Control in the Middle East Between the Wars* (London: Hamish Hamilton Ltd., 1986), 143.

<sup>2</sup> Paul Shemella, “Rethinking SO/LIC; Letter to the Editor,” *Joint Force Quarterly*, (Spring 2002): 10.

“degraded operations” theater C2. The analysis will be focused on joint requirements that the JFMCC will require for SOF to coordinate air-centric operations.

### **Air-Centric Operations: World War Two - Present**

“Theater commanders strive to exploit the full military capabilities of their assigned forces.”<sup>3</sup> The aforementioned is sound advice. Unfortunately, history has shown that inter-service rivalry can impede aggregate, joint operations and the accompanying C2 structure.

#### World War Two

A profound example of the difficulties of C2, especially where inter-service rivalries resided, was the Pacific/Southwest Pacific theater during World War II (WWII). General Douglas MacArthur commanded forces in the Southwest Pacific Area (SWPOA). Admiral Nimitz was the commander of the Pacific Ocean Area (POA).<sup>4</sup> Allied resources were stretched thin, especially aircraft. Nimitz was reluctant to assign his forces to MacArthur. This was especially critical with respect to carrier-based airpower needed to support MacArthur’s island hopping campaign.

MacArthur was very fortunate to have brilliant in-theater airpower expertise. In July 1942, General George Kenney assumed duties as MacArthur’s air commander.<sup>5</sup> General Kenney was thrust into a delicate situation. On one hand, Kenney was a senior officer of the Army Air Corps (AAC), and as such was influenced by doctrine of the Air Corps

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<sup>3</sup> Deputy Chief of Staff, Plans and Operations, Headquarters U.S. Air Force, JFACC Primer (Washington, D.C.: August 1992), 2.

<sup>4</sup> John Miller, Jr., *United States Army in World War II – the War in the Pacific – Cartwheel: The Reduction of Rabul*, (Washington, D.C.: Office of the Chief of Military History, Department of the Army, 1959), 3.

<sup>5</sup> Air Command and Staff College, Air University, U.S. Air Force, Distant Learning, Version 2.2, Book 1 (Maxwell AFB, AL: May 1999), 420.

Tactical School (ACTS).<sup>6</sup> The strategic bombing paradigm had unquestionably been engrained in General Kenney's military training. However, strategic bombing was not the optimum use of airpower to support General MacArthur. Kenney realized that he was there to support MacArthur's campaign, and thus, "reinvented" air operations:

"General Kenney's first offensive air operation, a raid on Rabaul, New Britain, convinced MacArthur of his air commander's complete dedication to the joint mission and its strategy. Given complete and acknowledged command and control of all SWPA Air Forces, Kenney was able to re-organize, allocate resources, streamline logistics, and devise an air campaign which would be the critical element in MacArthur's island hopping strategy. Kenney's familiarity and competence with army and naval questions were indispensable for planning and fighting coherent joint campaigns."<sup>7</sup>

General Kenney's commitment to MacArthur's overall campaign was an outstanding example of airpower and joint operations. General MacArthur's comments highlight General Kenney's operational brilliance:

"The outstanding military lesson of this campaign was the continuous calculated application of airpower, inherent in the potentialities of the Air Force, employed in the most intimate tactical and logistical union with ground troops."<sup>8</sup>

General Kenney's adroit grasp of land, maritime, and air synchronization marks him as a pioneer in joint operations. Thus, the JFMCC must have in-house subject matter expertise to synchronize land, maritime, and air operations.

## Korea

The Korean War was a textbook example of lack of unity of effort between the services. The period between WWII and the Korean War helped set the stage for the disjointed operations that prevailed. "Prewar budget and organizational struggles strongly

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<sup>6</sup> Ibid., 305.

<sup>7</sup> Deputy Chief of Staff, Plans and Operations, Headquarters U.S. Air Force, JFACC Primer (Washington, D.C.: August 1992), 4.

<sup>8</sup> Ibid.



affected relations between the services, resulting in poor cooperation.”<sup>9</sup> This mindset continued throughout the war. Although there was limited tactical success with close air support (CAS), coordination was poor between major land and air operations.

“Disagreement between the services over air asset allocation centered around the centralized control concept of the Air Force and the dedicated air assets concept used by the Marine Corps.”<sup>10</sup> The Navy opted to de-conflict air-operations by geographic responsibility, the precursor to the route pack system utilized by the Navy in Vietnam.

The independent operations of the Air Force and Navy during the Korean War were a truly disjointed effort. However, many valuable lessons can be drawn from Korea for our proposed JFMCC C2 system. Foremost, develop doctrine and lessons learned from previous military experience (WWII in this case) to serve as a *flexible* paradigm for future operations. Next, train jointly, emphasizing effective theater C2, during peacetime conditions to validate the doctrine. Unfortunately, the successful C2 and air-centric lessons learned from the Southwest Pacific campaigns of WWII were not developed as training doctrine during the interwar years and hence were “forgotten” when the Korean War commenced.<sup>11</sup>

### Vietnam

For the scope of this research paper, the main lesson learned from the Vietnam War is the total lack of unity of effort for air-centric operations between the Air Force and Navy.

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<sup>9</sup> Air Command and Staff College, Air University, U.S. Air Force, Distant Learning, Version 2.2, Book 1 (Maxwell AFB, AL: May 1999), 421.

<sup>10</sup> Air Command and Staff College, Air University, U.S. Air Force, Distant Learning, Version 2.2, Book 1 (Maxwell AFB, AL: May 1999), 421.

<sup>11</sup> For the purpose of this paragraph, the author’s definition of interwar years is the period between World War Two and the Korean War. Additionally, the author realizes that there were major political and economic constraints during the interwar period which produced significant reductions in military spending

“While the U.S. Air Force and the U.S. Navy fought two separate and often unrelated air wars against North Vietnam, in the South no less than six isolated air wars transpired simultaneously.”<sup>12</sup> A positive lesson learned from Vietnam was the continuing development of air-ground warfare, especially air-ground operations being directed onto targets by Forward Air Controllers (FAC) and ground controllers. “Two major concepts of air-ground warfare received their “baptism of fire” in Vietnam: the airmobile movement of troops on a large scale, and the helicopter and fixed-wing gunships.”<sup>13</sup> Another positive lesson learned was the effectiveness of SOF working with operatives from the Central Intelligence Agency (CIA). The Prairie Fire/Raven operations were examples of these activities.<sup>14</sup>

### Gulf War to Present

Unquestionably, the “air campaign”<sup>15</sup> of the Gulf War was impressive. Combat air operations executed during DESERT SHIELD/DESERT STORM were arguably the first major “experiment” in joint air warfare operations since the 1986 Defense Reorganization Act (a.k.a., Goldwater-Nichols). Yet, did DESERT STORM achieve the joint vision of Goldwater-Nichols? Reflecting upon a central theme of the Goldwater-Nichols Act, “to organize and train to fight in a fully coordinated, *joint manner*,”<sup>16</sup> some

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and subsequent military training.

<sup>12</sup> Mark K. Wells, *Air Power: Promise and Reality* (Chicago: Imprint Publications, 2000), 273.

<sup>13</sup> Richard P. Hallion, *Storm over Iraq: Air Power and the Gulf War* (Washington, D.C.: Smithsonian Institution Press, 1992), 22.

<sup>14</sup> John L. Plaster, *SOG: The Secret Wars of America's Commandos in Vietnam*, (New York: Simon and Schuster, 1997), 74.

<sup>15</sup> The term “air campaign” is used in its historical context. Current joint doctrine recognizes that airpower supports land campaigns and/or maritime campaigns.

<sup>16</sup> James G. Hulsey, Jr., Lt. Col., U.S.M.C., *Joint Warfighting and the 1986 Reorganization Act* (Maxwell A.F.B., AL: Air University, 1989), 25.

could argue that DESERT STORM did not. Most agree that air-centric operations for the Gulf War were controlled by the Air Force. The JFACC for DESERT SHIELD/STORM was Lieutenant General Chuck Horner, USAF. The Air Tasking Order (ATO) was produced by the JFACC staff at the Combined Air Operations Center (CAOC), an organization dominated by the Air Force. While the Gulf War was a quick, decisive victory, the lack of joint cooperation between the Air Force and Navy was significant. The following reveals the sophomoric relationship between the Air Force and Navy:

“The Navy and Air Force wrangled about matters both foolish and urgent. The Navy resented aircraft rules of engagement—instructions to pilots on when they could and could not shoot, written by the Air Force—which discriminated against Navy planes because they lacked redundant electronic means of distinguishing friend from foe. The Air Force in turn berated Navy pilots in the Gulf for often failing to broadcast the electronic signal that indicated they were indeed friend and not foe.”<sup>17</sup>

In closing our Gulf War analysis, the ATO was also a basic form of C2 friction between the Air Force and Navy. As unbelievable as it sounds today, the Navy required the ATO to be flown out to each of its six aircraft carriers daily—the communication systems between Riyadh and the aircraft carriers could not communicate with each other.<sup>18</sup>

Throughout the 1990’s the Air Force and Navy “grudge match” resurfaced in Balkan operations with respect to the JFACC and ATO process. A major lesson re-learned from the Bosnia and Kosovo air-centric operations was that the “age-old” operational variables of climate and geography can negate technical wizardry (i.e. “smart” bombs). Much to the chagrin of “air campaign” planners, the paradigm of flat, stationary “Visual Flight Rules” (VFR) targets of the Gulf War were hard to come by during air-centric operations against targets in the mountainous Balkans. On a more positive note, the Navy was

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<sup>17</sup> Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War* (New York: Houghton Mifflin, 1993), 151.

finally able to receive the ATO via electronic transmission.<sup>19</sup> The lack of ground based HUMINT sources for reconnaissance and surveillance were woefully inadequate during the war in Kosovo. An after-action report to Congress, prepared by DoD, stated: “The key weather related observation from Operation Allied Force is that we need all-weather search capabilities for target detection and tracking.”<sup>20</sup>

A significant military transformation occurred between Operation Allied Force in Kosovo and the War in Afghanistan. While the campaign over Kosovo was not a traditional military conflict, the U.S. and NATO prosecuted a conventional air war. “There was no direct clash of massed military ground forces in Operation Allied Force. Milosevic’s fielded forces were compelled to hide throughout most of the campaign, staying in caves and tunnels, under the cover of weather ... He chose to fight chiefly through asymmetric means: terror tactics and repression directed against Kosovar citizens.”<sup>21</sup>

Contrast Kosovo with operations in Afghanistan. Just as in the Balkans, mountainous terrain and adverse weather were present when SOF infiltrated into the area in October – November 2001. The insertion of highly skilled SOF personnel working with CIA operatives were arguably the critical HUMINT component that provided all-weather search capabilities for target detection and tracking. “Initial successes in Afghanistan were the direct result of a new style of warfare. Special Operations Forces, working with anti-Taliban Afghan forces on the ground, effectively leveraged long-range airpower

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<sup>18</sup> Benjamin S. Lambeth, *The Transformation of American Air Power* (Ithaca: Cornell University Press, 2000), 110.

<sup>19</sup> *Ibid.*, 172.

<sup>20</sup> Department of Defense, *Report to Congress, Kosovo/Operation Allied Force After-Action Report* (Washington, D.C.: U.S. Government Printing Office, 31 January 2000), 60.

<sup>21</sup> *Ibid.*, 6.

launched from carriers in the Arabian Sea, land bases in the region, and even the continental United States ... Special Operations Forces on the ground provided indispensable human intelligence ... Special Operations Forces on the ground reduced the time it took from a soldier identifying a target to an aircraft attacking it from hours to minutes.”<sup>22</sup> Most would agree that the war in Afghanistan represents a new paradigm for warfare.

So far, this paper has briefly reviewed air-centric operations and C2 since WWII. It should be apparent that during the past fifty-five years of war, the military services’ parochial interests have sometimes conflicted with “big-picture”, joint interests. General Kenney’s dynamic *in-theater* leadership in the Southwest Pacific during WWII overcame service rivalries and produced effective air-centric operations. Applying this lesson learned, our JFMCC/SOLE C2 system must “think purple” and promote unity of effort. Even though technology has increased dramatically over the years, timeless variables such as adverse weather and terrain have significantly hindered air-centric operations, with Kosovo being a recent example. During the war on terrorism in Afghanistan, SOF overcame adverse weather conditions and effectively coordinated air-centric operations. The well known images of SOF operating high-technology digital data, video and communication systems while riding horses with wooden saddles reaffirms USSOCOM’s mandate that “SOF personnel will be required to operate increasingly sophisticated equipment and to perform operations in a technologically advanced threat environment,

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<sup>22</sup> Department of Defense, *Annual Report to the President and the Congress* (Washington, D.C.: U.S. Government Printing Office, 2002), 28-29.

while remaining masters of the low and no-technology environments.”<sup>23</sup> Applying this paradigm, it is of paramount importance that our JFMCC self-contained theater C2 system can function in both the “ops-normal” net-centric environment, and a degraded environment.

## **C2 and the Joint Force Maritime Component Commander**

The floating infrastructure and self-contained nature of the JFMCC command structure are major selling points for this papers’ proposal of providing stand alone degraded operations C2. The sea basing of C2 is nothing new. “Sea based command and control (C2) originated during World War II when the Navy converted 17 merchant hulls into amphibious force command ships. In the early 1950s, the heavy cruiser *Northampton* (CG-1) was converted into a light command ship, and replaced a decade later when the light carrier *Wright* (CC-2) was reconfigured as a command ship.”<sup>24</sup>

There are four command ships in service presently in the Navy. “Of the four command ships in service today, two—the *Mount Whitney* (LCC-20) and the *Blue Ridge* (LCC-19)—were the first ever designed from the keel up to provide sea-based C2.”<sup>25</sup> The USS Mount Whitney has participated in contingency operations from Haiti to current operations in the continuing war on terrorism as the headquarters for Joint Task Force Horn of Africa.<sup>26</sup> Additionally, she has participated in numerous Joint Fleet Exercises

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<sup>23</sup> Office of the U.S. Assistant Secretary of Defense (Special Operations/Low Intensity Conflict, *The 2000 Special Operations Forces Posture Statement* (Washington, D.C.: U.S. Government Printing Office, 2000), 35.

<sup>24</sup> Commander Paul Nagy, U.S. Naval Reserve, *The History of Sea Basing* (Strategy and Concepts Branch, Deputy Chief of Naval Operations, Washington, D.C.: November 2002), 8. <http://www.usni.org/Proceedings/Articles02/PROcorbett11.htm?login=yes> [31 December 2002].

<sup>25</sup> Ibid.

<sup>26</sup> Webmaster, MT WHITNEY P.A.O., *USS Mount Whitney website*, December 2002. <http://www.mtwhitney.navy.mil> [31 December 2002].

(JTFEX).<sup>27</sup> For the purposes of this paper, the Mount Whitney will be analyzed as the platform for integrating a SOLE function into the JFMCC staff.

The USS Mount Whitney is the most sophisticated Command, Control, Communications, Computer, and Intelligence (C4I) ship ever commissioned. “She incorporates various elements of the most advanced C4I equipment and provides the embarked Joint Task Force Commander the capability to effectively command all units under the command of the Commander, Joint Task Force.”<sup>28</sup> A less technical, yet equally compelling selling point of the JFMCC platform is that it provides a commander some degree of geographic proximity to the area of operations.

### **JFMCC – SOLE Integration**

Integrating a SOLE function into the JFMCC’s staff will embed invaluable expertise and liaison capability for proper employment of SOF (air and ground). This capability is of paramount importance to the JFC because history has shown that SOF and air assets are the primary forces that routinely operate in hostile, denied areas.<sup>29</sup> A brief synopsis of SOF C2 at the theater level and the JFACC/SOLE relationship will help derive requirements for the JFMCC/SOLE system.

### **SOF at the Theater Level**

“Each geographic combatant commander has established a sub-unified command to serve as the functional Special Operations (SO) component for the theater. The theater

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<sup>27</sup> John Pike, *Commander, Carrier Group FOUR, Commander, Carrier Striking Force*, <http://www.globalsecurity.org/military/agency/navy/cargru4.htm> [31 December 2002].

<sup>28</sup> United States Navy, *USS Mount Whitney (LCC 20) website*, December 2002. <http://www.navysite.de/ships/lcc20.htm> [31 December 2002].

<sup>29</sup> Joint Chiefs of Staff, *Doctrine for Joint Special Operations*, Joint Pub 3-05 (Washington, D.C.: 17 April 1998), I-1.

<sup>30</sup> Ibid., III-2.

<sup>31</sup> Ibid., III-3.

SO commander performs broad continuous missions uniquely suited to SOF capabilities and that are of strategic and operational importance.”<sup>30</sup> The theater SOC may also be designated as the Joint Force Special Operations Component Commander (JFSOCC).<sup>31</sup> The JFSOCC will normally be the commander with the preponderance of SOF and *requisite C2 capabilities*. The C2 system aboard the USS Mount Whitney could possibly facilitate the JFMCC and JFSOCC.

Historically, a Joint Special Operations Task Force is formed when joint SOF are conducting operations.<sup>32</sup> With respect to air-centric operations, critical coordination occurs at the JSOTF level. JSOTF staff planners are constantly in contact with the SOLE/JFACC to coordinate SOF’s actions in theater.<sup>33</sup> The following describes how SOF, particularly Air Force Special Operations Forces (AFSOF), requires exacting coordination when integrating with conventional forces:

“The assignment of SOF air assets is an example of the geographic commander’s direction for SOF employment and command relationships. To assure centralized control and decentralized execution to all SOF-assigned missions, the JFC may designate that all SOF air assets remain under the OPCON of the JFSOCC. The JFSOCC may pass TACON of available SOF air assets to the JFACC or other component commanders when appropriate. Regardless of SOF aviation C2 arrangements, SOF aviation operations must be closely coordinated with the JFACC in order to ensure airspace deconfliction, flight safety, and operations security (OPSEC).”<sup>34</sup>

The necessity of the SOLE in coordinating SOF and air-centric operations is of paramount importance for the JFMCC C2 system.

#### The Special Operations Liaison Element

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<sup>32</sup> Author’s observations, 1990 – 2002, while assigned to 1<sup>st</sup> Special Operations Wing (SOW), 16<sup>th</sup> SOW, and 58<sup>th</sup> SOW.

<sup>33</sup> Ibid.

<sup>34</sup> Joint Chiefs of Staff, *Doctrine for Joint Special Operations*, Joint Pub 3-05 (Washington, D.C.: 17 April 1998), III-5.



SOF and conventional air are theater-level assets with no boundaries in either the depth or width of their operations. Since SOF and joint air share a common operating environment, proactive liaison between the JFSOCC and the Joint Force Air Component Commander (JFACC) is absolutely essential. AFM 1-1, *Basic Aerospace Doctrine of the United States Air Force*, states "Effective force application and safety requirements make it essential that the JSOTF commander operates in close coordination with the theater air commander."<sup>35</sup> The JFSOCC provides a SOLE to the JFACC/JFC staff or appropriate service component air command and control facility (emphasis added) to coordinate and synchronize SOF air and surface operations with joint air operations.<sup>36</sup> The JFMCC could very quickly become the service component air command and control facility if the geographically distant JFACC/SOLE network is disrupted. For the purposes of our analysis, the JFACC "A-Float" concept is not applicable. Although JTFEX 98-2 successfully employed a *preplanned* sea-based JFACC aboard the USS Mount Whitney,<sup>37</sup> this paper is evaluating degraded, in-theater C2 where the primary JAOC has been disrupted. It would be naïve to think the absolute functionality of a 1300 plus person JAOC<sup>38</sup> could be replicated aboard a ship. Considering that standard size of a

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<sup>35</sup> Department of the Air Force, *Air Force Manual 1-1, Volume 1, Basic Aerospace Doctrine of the United States Air Force* (Washington, D.C.: U.S. Government Printing Office, March 1992), 6.

<sup>36</sup> Joint Chiefs of Staff, *Command and Control for Joint Air Operations*, Joint Pub 3-56.1 (Washington, D.C.: 14 November 1994), B-1.

<sup>37</sup> Pike, 2.

<sup>38</sup> The JAOC/CAOC staff for Operation Allied Force in Kosovo swelled from 400 to 1300 personnel. Source: Department of Defense, *Report to Congress, Kosovo/Operation Allied Force After-Action Report* (Washington, D.C.: U.S. Government Printing Office, 31 January 2000), 45.

<sup>39</sup> Secretary of the Air Force, *Special Operations*, Air Force Doctrine Document 2-7, (Maxwell AFB: Alabama: 17 July 2001), 30.

SOLE is a 43 person deployable cell,<sup>39</sup> we will need to tailor a minimum package due to the physical space limitations aboard the ship (USS Mount Whitney) for our case study. The critical questions are: What size SOLE staff can a C2 ship such as the USS Mount Whitney accommodate? Can this reduced sized SOLE adequately perform its' mission? To answer these questions within the scope of this paper, some *notional* assumptions will have to be made:

1. The Navy has implemented the operational concepts from Fleet Battle Experiment Juliet (FBE-J). FBE-J was a net-centric warfare experiment conducted in July – August 2002 to help develop and evaluate a JFMCC operational C2 process that will prioritize multiple tasks with limited naval assets and conduct the full range of Effects Based Operations (EBO) in a joint environment. Under this assumption, the JFMCC can produce (in theater) the Joint Maritime Operations Plan, the Master Maritime Attack Plan, and the Maritime Tasking Order (MTO)—the MTO works on a 72/48/24 hour cycle, similar to the ATO.<sup>40</sup>

2. The JFC has contingency plans in place for degraded C4ISR. If the JFACC/JAOC network gets compromised, the JFMCC can conduct air-centric operations for one MTO/ATO cycle, assuming theater C3 is available.

The deployment message for JTFEX 03-1 provides a good description of the work areas available for C2 support on the USS Mount Whitney. There are sixty-nine billets available that get divided into eighteen cells:<sup>41</sup>

Cells 1 –3: JFACC Intel., Airspace, ATO: 11 billets	Cell 4: CSAR: 1 billet	Cell 5: Air Defense: 10 billets
Cells 6 – 9: JFACC Ops, JGAT, Plans, Tng: 19 billet.	Cell 10: Info Ops: 1 billet	Cell 11: PAO/DV: 10 billets
Cell 12: CIMIC: 1 billet	Cell 13: Ops Center.: 5 billets	Cell 14: Current Ops: 3 billets

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<sup>40</sup> Sheldon Gardner, *Maritime Planning Support System (MPSS) for Fleet Battle Experiment Juliet (FBE-J)*, (Washington, D.C.: Naval Research Laboratory, 2002).

<sup>41</sup> Routine USN message traffic, *JTFEX 03-01 Selected Reserve Active Duty Requirements*, <http://www.navres.navy.mil/navresfor/N3/Info/301508aug02.htm> [31 December 2002].

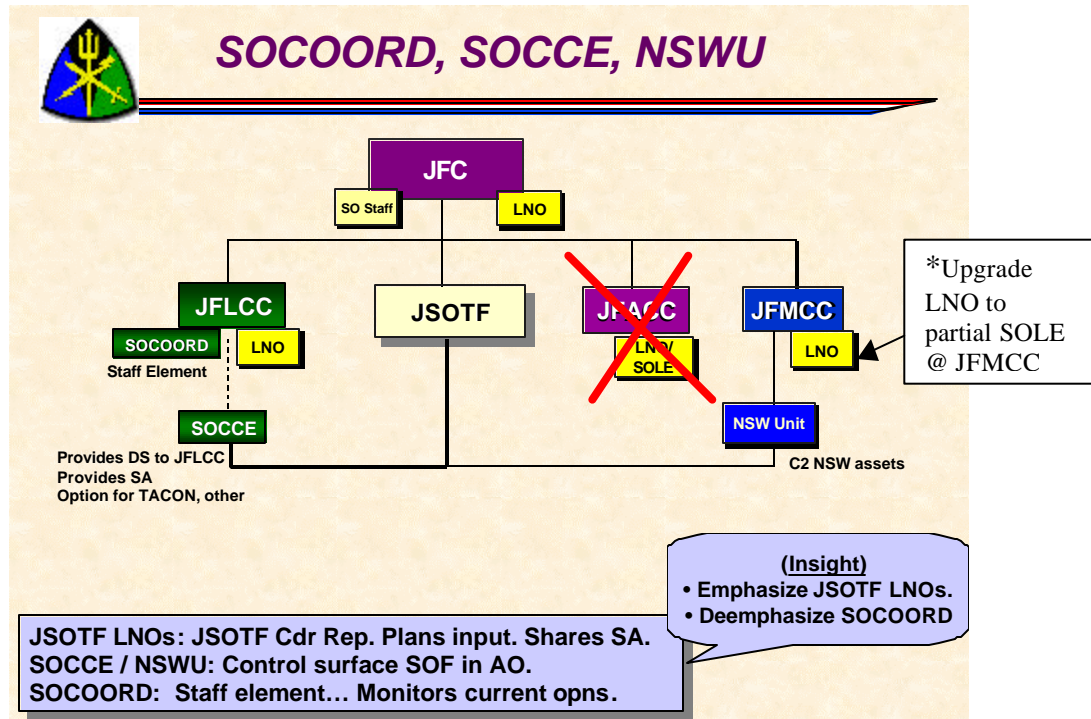
<sup>42</sup> Ibid.

Cell 15: Assessments: 2 billets	Cell 16: Coordination: 2 billets	Cell 17: JOC Support: 2 billets
Cell 18: Joint Fires: 2 billets		

**Figure One: C2 Billets – LCC Platform<sup>42</sup>**

Figure One reveals the lack of SOF and other governmental agency expertise aboard the LCC platform. Four to five billets will be needed to provide a SOLE function to the JFMCC platform.

Figure Two depicts the proposed organizational chart and C2. The addition of a SOLE function allows the JFC, via the JFMCC, to conduct air-centric operations with SOF. This provides the JFC backup capability when primary JFACC control has been compromised. SOF provide a critical link for intelligence and near real-time targeting of enemy forces. ISR of this nature could be critical at all levels of command—tactical, operational, and strategic. This alone validates the need for a standalone, backup capability to utilize SOF.



**Figure Two: Proposed Theater Organization Chart<sup>43</sup>**

With the JFACC network compromised, the JFMCC's SOLE function allows SOF and air-centric operations to continue, providing *sustained* combat operations.

### **Recommendations**

1. First and foremost, the JFMCC must “think purple”. The theater C2 and MTO capability aboard the LCC is not meant to replace the JFACC/JAOC. Its purpose is to provide functional theater C2 for SOF to coordinate air centric operations when the connectivity to the JAOC has been compromised. Therefore, the Air Force/Navy “grudge match” that has plagued unity of effort for air centric operations over the past fifty-five years needs to be put to rest. General Kenney’s operations in WWII are proof positive that unity of effort for air operations can be accomplished.

<sup>43</sup> Basic wiring diagram from Colonel Mike Findlay’s Powerpoint Presentation, *SOF in the JTF*, Joint Special Operations University, Joint Special Operations Intermediate Seminar, (Hurlburt Field, FL: April 2002).

2. The JFMCC needs to incorporate a SOLE capability. Based on the LCC layout, remove a minimum of four billets (preferably five) from the public affairs/DV cell and create a SOLE cell. If AFSOC becomes the service OPR for CSAR, a combined SOLE/CSAR cell would maximize billets versus available space on the LCC. Baseline SOLE requirements into Joint Publication 3-32, *Command and Control of Joint Maritime Operations* (currently in draft status).

3. Manning four/five additional SOLE positions aboard the JFMCC's LCC will be a significant strain on manpower resources. Presently, AFSOC is manning their permanent SOLEs at the land-based JAOCs at approximately 50 percent.<sup>44</sup> Therefore, "dual-hatting" folks would maximize space versus available liaison officers (LNOs). Have AFSOC identify personnel who have multi-weapon system expertise. For SOF fixed wing coordination, strive to get an individual with MC-130 and AC-130 experience. On the rotary wing side, obtain an AFSOC LNO and an Army LNO. An Air Force Special Tactics (STS) LNO would complete the SOLE team. SEAL LNOs could be obtained within the fleet, requiring minimal infrastructure support. Looking towards the future, LNOs from the USMC will be required as their MEU-SOC capability is integrated into the spectrum of SOF-centric operations. This should provide additional capability to the JFC.

4. Embed SOLE/SOF expertise at the Standing Joint Force Headquarters (SJFHQ) level.<sup>45</sup> This will educate future JFC staff members on SOF limitations and capabilities. This is critical because SOF capabilities and limitations are not well known in the

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<sup>44</sup> Telephone interview with Major Scott Medely, AFSOC Manning and Personnel, 15 January 2003.

<sup>45</sup> The Standing Joint Force Headquarters (SJFHQ) is a CJCS mandated effort to provide an "on-call" joint staff augmentation capability. SJFHQ is projected to be operational by 2005. See Gene Myers,

conventional community.<sup>46</sup> This future staff augmentation capability should benefit both the JFMCC and JFC.

5. Provide a billet for interagency or other government agency (OGA) LNOs. As the war in Afghanistan has proven, OGAs are a valuable asset for the JFC. While it's beyond the scope of this paper, future studies should address provisions for integrating interagency operations. Newport Paper 22 from the Naval War College has identified that the JFMCC structure is not designed to support interagency operations.<sup>47</sup> Again, attempt to "dual-hat" the interagency LNOs, where an individual has both SOF and homeland security expertise.

6. During degraded C4 operations, available bandwidth will be decreased. Combat operations must continue. Therefore, theater C3 for SOF and air centric operations must take precedent over information activities (i.e., video teleconferences (VTC)). Joint Publication 5-00.2, *Joint Task Force Planning Guidance and Procedures*, clearly states: "C4 systems must be interoperable, flexible, responsive, mobile, disciplined, survivable, and sustainable."<sup>48</sup>

7. Validate this concept during future Fleet Battle Experiments. If technically possible, execute distributed mission training (DMT) evaluations with USSOCOM and Air Force Command and Control Training Integration Group (AF C2TIG). Furthermore, baseline SOLE integration into the proposed Joint Command and Control Ship, JCC(X).<sup>49</sup>

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*Concepts to Future Doctrine*, (Naval War College, reprinted from A Common Perspective, April 2002 issue), 8.

<sup>46</sup> John M. Collins, "Where Are Special Operations Forces?" *Joint Force Quarterly*, (Autumn 1993): 16.

<sup>47</sup> John Ballard and Michael Critz, *Newport Paper 22, Homeland Security: Maritime Command and Control*, (Naval War College, RI: 23 October 2001), 102.

<sup>48</sup> Joint Chiefs of Staff, *Joint Task Force Planning Guidance and Procedures*, Joint Pub 5-00.2 (Washington, D.C.: 13 January 1999), X-3.

<sup>49</sup> Nagy, 8.

## Conclusions

Functional C2 is an absolute necessity for effective combat operations. Our high technology, global C2 network has produced successful combat operations where the JFC, JFACC, JFMCC and ground forces (SOF) were geographically separated by thousands of miles. The C2 process in Afghanistan was truly global; pilots found themselves overhead suspected enemy positions as they awaited a long approval chain that typically went from Airborne Warning and Control System Aircraft (AWACS) to the CAOC in Saudi Arabia to the JFC's headquarters in Tampa, Florida, and back.<sup>50</sup> While this system worked, we should not consider it infallible technology. A resourceful opponent may be able to disable and disrupt components of the global C2 network.

SOF, coordinating air-centric operations in Afghanistan, redefined airpower's ability to strike targets in adverse weather. This is critical for the JFC. "The ability to deliver combat power quickly and at the decisive place and time is key to the success of any military action."<sup>51</sup> Moreover, "Special Forces set the standard for cooperation with intelligence agencies because of their sensor-like role in command and control and their unique abilities for unconventional tactics against asymmetrical opponents."<sup>52</sup> Enhanced C2 and intelligence are additional "selling points" for SOLE integration into the JFMCC structure. The JFC requires the aforementioned for enhanced planning, preparation, and execution of combat operations.

The present staffing configuration of LCCs (i.e., USS Mount Whitney) that supports the JFMCC does not have in-house special operations expertise. The addition of a SOLE function to the JFMCC staff will allow the JFMCC to provide backup theater C2 for combat operations involving SOF and airpower. This is a critical redundant capability for the JFC. To reemphasize, the JFMCC C2 is not meant to replace the JFACC/JAOC/SOLE C2. An initial milestone would be to complete one ATO/MTO cycle self-contained within the LCC. During the self-contained C2 operations, mission critical C3 (i.e., SATCOM) must take priority over non-mission essential activities—bandwidth will be a limiting factor.

In closing, leadership and highly skilled troops are the linchpins of the proposed self-

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<sup>50</sup> Elaine M. Grossman, *Key Command Banned Nearly all Attacks on Afghan Roads, Bridges*, (Washington, D.C.: Inside the Pentagon, 9 January 2003), 1.  
<http://ebird.dtic.mil/Jan2003/e20030109144989.html>

<sup>51</sup> Milan N. Vego, *Operational Warfare*, (U.S. Naval Warfare, Newport, RI: 2000), 239.

<sup>52</sup> Dr. Thomas Barnett and Dr. Henry H. Gaffney, Jr., *The Top 100 Rules of the New American Way of War*, (Washington, D.C.: Office of Force Transformation, Office of the Secretary of Defense, January 2003), 10.

contained theater C2 system. General Steiner, former USCINCSOC, provides valuable insight:

“During Operation JUST CAUSE, I had good, competent liaison officers: not just to keep me informed but also to convey to their units how the battle was going. **They are crucial to success, and you have to pick your best people.**”<sup>53</sup>

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<sup>53</sup> Joint Chiefs of Staff, *Joint Task Force Planning Guidance and Procedures*, Joint Pub 5-00.2 (Washington, D.C.: 13 January 1999), II-29.



## **GLOSSARY**

**AFSOC**—Air Force Special Operations Command (in theater, Component)  
**AFSOF**—Air Force Special Operations Forces  
**ARSOF**—Army Special Operations Forces  
**AOR**—Area of Responsibility  
**ATO**—Air Tasking Order  
**C<sup>2</sup>**—Command and Control  
**C<sup>3</sup>**—Command, Control, and Communications  
**C<sup>4</sup>ISR**—Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance  
**CAOC**—Combined Air Operations Center  
**CIA**—Central Intelligence Agency  
**CINC**—Commander in Chief  
**CSAR**—Combat Search and Rescue  
**COMJTF**—Commander, Joint Task Force  
**COMSOC**—Commander, Special Operations Command (in theater, Component)  
**DOD**—Department of Defense  
**FAC**—Forward Air Controller  
**GNA**—Goldwater-Nichols Act  
**HUMINT**—Human Intelligence  
**JCS**—Joint Chiefs of Staff  
**JFACC**—Joint Force Air Component Commander  
**JFC**—Joint Force Commander  
**JFMCC**—Joint Force Maritime Component Commander  
**JFLCC**—Joint Force Land Component Commander  
**JFSOCC**—Joint Forces Special Operations Component Commander  
**JOA**—Joint Operations Area  
**JOC**—Joint Operations Center (Special operations component)  
**JSOTF**—Joint Special Operations Task Force  
**JTF**—Joint Task Force  
**LCC**—Naval Command Ship  
**MEU-SOC**—Marine Expeditionary Unit, Special Operations Capable  
**NSW**—Naval Special Warfare  
**OGA**—Other Government Agency  
**OPCON**—Operational Control  
**SAR**—Search and Rescue  
**SEAL**—Sea-Air-Land (Team)  
**SF**—Special Forces  
**SOC**—Special Operations Command  
**SOF**—Special Operations Forces  
**SOLE**—Special Operations Liaison Element  
**SOW**—Special Operations Wing  
**STT**—Special Tactics Team  
**TACON**—Tactical Control  
**USCINCSOC**—Commander in Chief, United States Special Operations Command

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